



March 25, 2021

The Honorable Chair and Commissioners  
Hawai'i Public Utilities Commission  
465 South King Street  
Kekuanaoa Building, 1st Floor  
Honolulu, HI 96813

**Re: DER Parties Initial Recommendations in Response to Commission Guidance for Development of an Emergency Demand Response Program and Notification of Additional Status Update Meetings**

Aloha Honorable Chair and Commissioners,

Hawaii PV Coalition, Hawaii Solar Energy Association, and Distributed Energy Council of Hawaii ("the DER Parties") respectfully provide the following initial recommendations in response to the Commission's March 9, 2021 *"Notice of Status Conference on Tuesday, March 16, 2020"* and March 19, 2021 *"Guidance for Development of an Emergency Demand Response Program and Notification of Additional Status Update Meetings"* ("Guidance Letter"). In addition, the DER Parties join in the concurrently filed comments by Blue Planet Foundation and Ulupono Initiative.

The DER Parties acknowledge the urgent call for proposals to address near term system reliability concerns associated with the closure of the AES coal plant, and appreciate the opportunity to develop customer-centric solutions to address this problem. The recommendations below could enable new and existing resources to participate in the Emergency DR Program outlined in the Guidance Letter, or, under a no-regrets approach, encourage the development of new, customer-driven generating resources to reduce the strain on the broader electrical system.

The DER Parties will provide additional recommendations for the BYOD-based Emergency DR Program as a part of their Final Program Track proposals in the DER docket. As more details about the underlying technical need are identified, additional changes may be necessary to existing DER programs to ensure an optimized solution is in place. The DER Parties pledge to continue working on ideas/program proposals in a collaborative fashion.

### **Recommendations for Immediate Commission Consideration**

1. *Allow customers with export-restricted DER systems to export to the electrical grid.*

A significant amount of existing customer-sited solar PV systems on Oahu (and other islands) are currently subject to export prohibitions. Allowing these customers to export to the grid would unlock additional clean generating capacity and greatly enhance the capacity of customer-sited systems available to provide dynamic load management services, such as those identified in the Guidance Letter, to support near term reliability and other grid needs. For instance, customers taking service under the Customer Self-Supply tariff represent over 10 MW of nameplate capacity on Oahu.<sup>1</sup> Several megawatts of Smart Export tariff customers are also restricted from exporting as a condition of interconnection. Additionally, there are over 123.67 MWs of export-restricted SIA customers on Oahu.<sup>2</sup>

Many of these export-restricted customers have a battery storage system paired with their solar PV system, which significantly enhances the capabilities of these systems to provide capacity and other load management services.<sup>3</sup> The DER Parties recommend unlocking these generation resources for enrollment in the Emergency DR Program or otherwise provide reliability benefits outside the program, rather than allowing their generation to be curtailed or “wasted” unnecessarily. Approaches to opening up this resource could include a simplified and expedited interconnection screen to identify potential utility service infrastructure issues associated with allowing exports from these systems.<sup>4</sup> Systems that pass this screen would be permitted to export without undergoing a lengthy and potentially costly new interconnection process. In addition to a case-by-case screening process, Hawaiian Electric could proactively assess circuits and notify export-restricted customers that their systems are preauthorized to export.

If switching to a new tariff is necessary to allow exports from these systems -- as, for instance, the DER Parties anticipate would be the case for CSS customers -- the process for making that switch should be simple and customer-friendly. Hawaiian Electric already has utility meter numbers, photographs of system installations, validation of system performance, and other customer and system information necessary to facilitate

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<sup>1</sup> See Hawaiian Electric’s Weekly Queue Report for the week ending 3-16-2021 (reporting 11.01 MWs of Customer Self Supply applications executed on Oahu).

<sup>2</sup> *Id.* The DER Parties acknowledge there are greater complications with moving SIA customers into an exporting mode, but observe that those customers provide a significant near-term opportunity to unlock additional generation capacity for grid exports.

<sup>3</sup> *Commission Guidance Letter* (identifying times of system as “including but not limited to morning ramps, periods of low renewable energy generation, unexpected unit outages, and evening peaks”).

<sup>4</sup> Certain controls, such as volt-watt, could be conditions for this expedited process.

such a process. Ideally, under a streamlined process to allow tariff switching, the customer would (1) sign an agreement to switch to the new tariff, and (2) provide proof of the system's updated setting(s). Upon completing these steps, the customer's system would operate under the terms of the new tariff.<sup>5</sup> Critical to the success of this approach is creating a customer-centric process that minimizes customer "pain" points and provides a simple and expedited means for export-restricted DER systems to operate in a manner that better leverages their ability to meet dynamic grid needs.

The DER Parties note that, in addition to unlocking currently restricted generation resources, providing customers a simple and customer-friendly process to switch tariffs will become increasingly important as new "permanent" tariff designs are created and discussion of transitioning tariffs begins in earnest. Adopting processes now that make it easier for customers to switch tariffs will have immediate near term benefits and multiple future benefits.

2. *Remove unnecessary restrictions for customers to add batteries to their existing DER systems.*

There are currently over 350 megawatts of customer-sited solar PV systems installed on Oahu on an export-based tariff.<sup>6</sup> Many of these customers do not have battery storage. Customer-sited solar PV paired with battery storage enhances the load reduction, load shift, dispatchable export, and other dynamic load management capabilities such that customers can operate their systems in response to systems needs with much greater precision. However, current program rules are unclear how NEM and potentially other DER customers could add a battery to their existing PV system except for backup purposes.<sup>7</sup> There is clear confusion; some DER customers have been told they need to switch to a different tariff, such as NEM+, in order to allow a battery to load shift and any generation from the underlying solar would no longer be allowed to export to the grid.

Clarity is needed about the current process and, if not currently allowed, customers should be allowed to install a battery storage without adversely impacting their current tariff status. Further, a simplified notification system should be available where those batteries are allowed to export to the grid in response to a Bring Your Own Device or grid services program (essentially a utility called for dispatch).

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<sup>5</sup> Some tariffs may have new settings or requirements that the "older" DER systems cannot meet. Under a customer-friendly approach, these new requirements should not be a barrier to customers switching tariffs but rather a "if can, can, if no can, no can" approach should be taken.

<sup>6</sup> See Hawaiian Electric's Weekly Queue Report for the week ending 3-16-2021 (installed capacity is inclusive of customers on the NEM, CGS, CGS+, and Smart Export tariffs).

<sup>7</sup> It is possible similar program restrictions exist for other tariffs as well, particularly for tariffs that are at capacity and are queuing new applicants.

Clarifying and simplifying the process to add battery storage to existing solar systems, without impacting a customer's current tariff status, has a high potential to unlock additional capacity that could provide critical load management services on an expedited basis.

- 3) *Establish a "virtual net metering" program for deed-restricted, affordable housing properties.*

Deed-restricted, affordable housing property buildings could offer available roof-space to host solar PV as well as provide a resilient/clean energy resource for disadvantaged communities. Rooftop solar PV and battery storage is frequently impractical for these types of properties because individual units are not separately metered, thus meaning it is difficult to install a DER system and direct the bills savings to the low-to-moderate income tenants.

Under a no regrets approach, the DER Parties recommend creating an onsite virtual net metering program, based on the California model, to allow property owners the ability to install solar PV and a battery system and credit any exported power to other onsite tenants. Pragmatically, the excess generation would flow to the nearest load and generally serve the other individually metered units. The exported power, as an accounting mechanism, would earn credits that would be distributed to the individual LMI customer tenants residing in the building.

California successfully implemented a similar model that could be adapted for implementation in Hawaii. Early experience with the California program indicates the model reduces risks to the property owner and maximizes benefits for the resident LMI customers. The DER Parties believe such a program could create between 2.5 to 5 MWs of clean generating capacity and provide the added benefit of rate relief to customers that need it the most.

- 4) *Establish a "virtual net metering" program for homeowner association properties.*

The DER Parties further recommend the virtual net metering concept described above be extended to include townhomes/homeowner association properties. While admittedly a bold step, the DER Parties believe such an approach would address several needs, including expanding access to a larger population of LMI customers, making strides in solving the landlord/tenant challenge, and delivering a significant ramp up in renewable energy adoption.

A continuing hurdle for solar adoption by customers in townhomes is the need for Homeowner Association ("HOA") approval.<sup>8</sup> Providing HOA's the ability to install

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<sup>8</sup> Despite the provisions of Haw. Rev. Stat. § 196-7 (the "right to solar" law), many homeowner associations create impediments to townhome tenants who want to install rooftop solar and battery storage. Litigating a tenant's rights is usually cost prohibitive.

sufficient solar capacity to provide credits to serve all the HOA's tenants would likely be received with interest. The DER parties believe such an approach could rapidly expand the addressable market, including improved access to DERs to rental markets, while adding a significant amount of clean generating capacity available to provide load management and other services envisioned by the Commission for the Emergency DR Program.

### Conclusion

Distributed energy resources could be a customer-based solution that addresses the 50 MW resource need identified by the Commission. The foregoing recommendations focus on adjustments to DER policy that the DER Parties believe are important steps to ensure that DER deployment – particularly battery storage – can be scaled to the levels needed to meet the Commission's 50 MW target as quickly as possible. The DER Parties will provide further recommendations for the BYOD-based Emergency DR Program as soon as possible and as a part of their Final Program Track proposals in the DER docket. The DER Parties appreciate the opportunity to provide these preliminary comments and will continue to collaborate with the Commission and stakeholders to address these grid reliability concerns.

Respectfully Submitted,

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